Claims

1. In a communication system, a method comprising:

2 determining a number of available fingers in a receiver of said communication system;

4 adjusting a threshold based on said number of available fingers.

2. The method as recited in claim 1, wherein said

2 threshold is a pilot signal search window threshold.

3. The method as recited in claim 2 further comprising:

2 receiving a signal;

assigning at least a finger from said number of

4 available fingers to said received signal;

wherein said adjusting of said pilot signal search

6 window threshold allows assigning more or less of fingers

to said received signal.

4. The method as recited in claim 3 further comprising:

2 assigning more or less of fingers to said received

signal after said adjusting said pilot signal search window

4 threshold.

5. The method as recited in claim 2 further comprising:

2   receiving a pilot signal;

correlating with said received pilot signal within a

4 search window;

comparing correlation energy of said received pilot

6 signal to said adjusted search window threshold.

6. The method as recited in claim 5 further comprising:

2   accepting or denying a processing of a received signal

based on whether said received pilot signal meets said

4 adjusted search window threshold in said comparing.

7. The method as recited in claim 6, wherein said

2 received signal is associated with said received pilot

signal.

8. The method as recited in claim 1 wherein said

2 threshold is a lock/unlock threshold.

9. The method as recited in claim 8 further comprising:

2   receiving a signal;

assigning at least a finger from said number of

4 available fingers to said received signal;

wherein said adjusting of said lock/unlock threshold

6 allows more or less of said least assigned finger to switch

from a lock condition to a unlock condition or from said

8 unlock condition to said lock condition.

10. The method as recited in claim 9 further comprising:

2 switching at least said least assigned finger from

said lock condition to said unlock condition or from said

4 unlock condition to said lock condition.

11. The method as recited in claim 1, wherein said

2 determining includes:

determining a number of fingers in a lock/unlock

4 condition; wherein said determining of said number of

available fingers is based on said number of fingers in

6 said lock/unlock condition.

12. The method as recited in claim 1, wherein said

2 determining includes:

determining a time period of lock/unlock condition of

4 a number of fingers in a lock/unlock condition; wherein

said determining of said number of available fingers is

6 based on said time period of lock/unlock condition of said

number of fingers in said lock/unlock condition.

13. The method as recited in claim 1 wherein said

2 threshold is a combine/un-combine threshold.

14. The method as recited in claim 13 further comprising:

2   receiving a signal;

     assigning at least a finger to said received signal;

4   wherein said adjusting of said combine/un-combine

threshold allows more or less of said least assigned finger

6 to switch from a combine condition to a un-combine

condition or from said un-combine condition to said combine

8 condition.

15. The method as recited in claim 14 further comprising:

2   switching at least said least assigned finger from

said combine condition to said un-combine condition or from

4 said un-combine condition to said combine condition.

16. The method as recited in claim 1, wherein said

2 determining includes:

     determining a number of fingers in a combine/un-

4 combine condition; wherein said determining of said number

of available fingers is based on said number of fingers in

6 said combine/un-combine condition.

17. The method as recited in claim 1, wherein said

2 determining includes:

     determining a time period of combine/un-combine

4 condition of a number of fingers in a combine/un-combine

condition; wherein said determining of said number of

6 available fingers is based on said time period of combine/un-combine condition of said number of fingers in

8 said combine/un-combine condition.

18. The method as recited in claim 1, wherein said

2 determining includes:

   determining a number of fingers in an assign/un-assign

4 condition; wherein said determining of said number of available fingers is based on said number of fingers in

6 said assign/un-assign condition.

19. The method as recited in claim 1 further comprising:

2 determining at least one of Active set, Candidate set, and Neighbor set of base stations in said communication

4 system, wherein each set identifies a set of base stations for communication with a mobile station in said

6 communication system, wherein said Active set identifies a set of base stations assigned for communication with said

8 mobile station, wherein said Candidate set identifies a set of base stations with sufficient pilot signal strength at

10 said mobile station and for communication with said mobile station, wherein said Active set is exclusive of said

12 Candidate set, wherein said Neighbor set identifies a set of base stations for possible communication with said

14 mobile station, wherein said Neighbor set is exclusive of said Active and Candidate sets;

22

16 moving at least one base station from one set to another set among said Active, Candidate and Neighbor sets

18 of base stations based on said adjusting said threshold based on said number of available fingers.

20. The method as recited in claim 1 wherein said

2 threshold is at least one of an add-threshold and a drop-threshold.

21. The method as recited in claim 20 wherein at least one

2 of said add-threshold and said drop-threshold is associated with at least one of Active set, Candidate set, and

4 Neighbor set of base stations in said communication system, wherein each set identifies a set of base stations for

6 communication with a mobile station in said communication system, wherein said Active set identifies a set of base

8 stations assigned for communication with said mobile station, wherein said Candidate set identifies a set of

10 base stations with sufficient pilot signal strength at said mobile station and for communication with said mobile

12 station, wherein said Active set is exclusive of said Candidate set, wherein said Neighbor set identifies a set

14 of base stations for possible communication with said mobile station, wherein said Neighbor set is exclusive of

16 said Active and Candidate sets.

22. The method as recited in claim 20 wherein at least one
2 of said add-threshold and said drop-threshold is associated
with determining a number of fingers in a lock/unlock
4 condition.

23. The method as recited in claim 20 wherein at least one
2 of said add-threshold and said drop-threshold is associated
with determining a number of fingers in a combine/un-
4 combine condition.

24. The method as recited in claim 20 wherein at least one
2 of said add-threshold and said drop-threshold is associated
with correlation of a pilot signal in a search window.

25. An apparatus in a communication system comprising:
2 a controller configured for determining a number of
available fingers in said communication system, wherein
4 said controller further is configured for adjusting a
threshold based on said number of available fingers.

26. The apparatus as recited in claim 25 wherein said
2 threshold is a pilot signal search window threshold.

27. The apparatus as recited in claim 26 further
2 comprising:

a pilot signal searcher configured for searching for

4 pilot signals, and further configured for comparing signal

energies of said searched pilot signals with said adjusted

6 pilot signal search window threshold.

28. The apparatus as recited in claim 25 wherein said

2 threshold is a lock/unlock threshold.

29. The apparatus as recited in claim 28 further

2 comprising:

at least a finger resource configured for correlating

4 with at least one received signal;

wherein a condition of said least finger is either a

6 lock condition or a unlock condition, said least finger is

further configured to switch from said lock condition to

8 said unlock condition or from said unlock to said lock

condition based on whether signal energy of said received

10 signal meets said adjusted lock/unlock threshold.

30. The apparatus as recited in claim 25 wherein said

2 threshold is a combine/un-combine threshold.

31. The apparatus as recited in claim 30 further

2 comprising:

at least a finger resource configured for correlating

4 with at least one received signal;

wherein a condition of said least finger is either a

6 combine condition or a un-combine condition, wherein said

   least finger is further configured to switch from said

8 combine condition to said un-combine condition or from said

   un-combine condition to said combine condition based on

10 whether signal energy of said received signal meets said

   adjusted combine/un-combine threshold.

32. The apparatus as recited in claim 25 wherein said

2 controller further is configured to determine at least one

   of Active set, Candidate set, and Neighbor set of base

4 stations in said communication system, wherein each set

   identifies a set of base stations for communication with a

6 mobile station in said communication system, wherein said

   Active set identifies a set of base stations assigned for

8 communication with said mobile station, wherein said

   Candidate set identifies a set of base stations with

10 sufficient pilot signal strength at said mobile station and

   for communication with said mobile station, wherein said

12 Active set is exclusive of said Candidate set, wherein said

   Neighbor set identifies a set of base stations for possible

14 communication with said mobile station, wherein said

   Neighbor set is exclusive of said Active and Candidate

16 sets;

   wherein said controller is further configured for

18 moving at least one base station from one set to another

set among said Active, Candidate and Neighbor sets of base

20 stations based on said adjusting said threshold based on

said number of available fingers.

33. In a communication system, a method comprising:

2 determining a number of available fingers in a

receiver of said communication system;

4 adjusting a pilot signal search window threshold based

on said number of available fingers;

6 correlating with a received pilot signal within a

search window;

8 comparing correlation energy of said received pilot

signal to said adjusted search window threshold;

10 determining an assigned number of fingers, from said

number of available fingers, to a received signal after

12 said adjusting said pilot signal search window threshold.

34. An apparatus in a communication system comprising:

2 a controller configured for determining a number of

available fingers in said communication system, wherein

4 said controller further is configured for adjusting a pilot

signal search window threshold based on said number of

6 available fingers;

a pilot signal searcher configured for searching for

8 pilot signals, and further configured for comparing signal

energies of said searched pilot signals to said adjusted

10   pilot signal search window threshold.